

ABSTRACT OF THE DISCLOSURE

An aspect of the invention for achieving the aforementioned objects relates to a fuel cell including at least one unit cell. The unit cell includes a first separator which is disposed on one side of an MEA, and which includes a first concave groove which constitutes a first gas passage, and a first convex rib whose rear surface constitutes a first refrigerant passage, and on which a first gas cross groove is formed; and a second separator which is disposed on the other side of the MEA, and which includes a second concave groove which constitutes a second gas passage, and a second convex rib whose rear surface constitutes a second refrigerant passage, and on which a second gas cross groove is formed. An integral refrigerant passage whose cross sectional area in a direction in which the integral refrigerant passage extends is equal to or larger than that of the first refrigerant passage and that of the second refrigerant passage is formed by combining the first refrigerant passage and the second refrigerant passage in a cell stacked direction when a plurality of the first separators and a plurality of the second separators are stacked.